

that given by Lamarek has the priority. It has been called *Sphaerulites*, *Ostracites* and *Acardo*, and the east of the interior cavity has been considered as a genus, under the name of *Birostris* and *Iodamia*.

Fam. 2. HIPPURITIDÆ.

The lower valve is elongate, tapering, subcylindrical, of a solid laminated texture; the upper valve is nearly flat, and pierced with peculiar pores radiating to the circumference with branches diverging to the upper surface.

This family only contains a single genus, *Hippurites*, Lamk., which has also had many other names applied to it, as *Cornucopia*, *Orthoceratites*, *Batolites* (or *Batholites*), *Raphanister*, and *Bitubulites*.

Fam. 3. CAPROTINADÆ.

The lower or fixed valve is conical and spirally twisted, and marked internally with prominent ridges or transverse septa; the dorsal or free valve is oblique or spiral. They differ from *Caprina* in the valves not being of a cellular or fibrous texture.

This family contains two genera:—

1. *Caprotina*, D'Orb., which has the cavity of the shell merely marked with internal ridges.

2. *Ichthyosarcolithes* has the cavity of the large spiral or involute fixed valve divided transversely by a number of oblique septa; the upper valve is probably like an operculum, but this genus is very imperfectly known.

BIBLIOGRAPHICAL NOTICES.

The Ferns of Britain and their Allies; comprising Equisetaceæ, Filicaceæ, Lycopodiaceæ and Marsileaceæ. By R. DEAKIN, M.D., London. Pp. 139. 8vo. London, 1848.

A Handbook of British Ferns intended as a guide and companion in Fern Culture, and comprising scientific and popular descriptions, with engravings of all the species indigenous to Britain, with remarks on their history and cultivation. By THOMAS MOORE, Curator of the Bot. Garden of the Apothecaries' Company. Pp. 156. 16mo. London, 1848.

OWING chiefly, it is probable, to the publication of Mr. Newman's beautiful work 'A History of British Ferns,' the study of this tribe of plants has taken a firm hold upon the affections of British botanists, and we now hail with delight the appearance of two other illustrated works upon them, as they cannot but tend still further to popularize the subject and lead to a more complete and scientific knowledge of it.

The books before us are of very different sizes and pretensions, but we do not know to which the preference is due. Happily however we can hardly be considered as called upon to decide their relative merits.

Mr. Moore's work is intended for use in the field and garden; Dr. Deakin's for the library and drawing-room; both aim at scientific accuracy, and will be of value to botanists. In each of them we are introduced to several newly-discovered species or varieties, and both are well and fully illustrated by figures of all the forms which have been found in Britain.

Our authors have paid much attention to *Lastrea filix-mas*, and Dr. Deakin separates from it a plant which seems to possess strong claims to specific distinction under the name of *L. erosa*, believing that he has identified it with the *Aspidium erosum* of Schkuhr. On this identification we are not qualified to give an opinion, never having seen a specimen of Schkuhr's plant nor possessing access to his plate. It is found "on the Cathcart Hills near Glasgow . . . in great profusion," but we have not seen specimens, and can therefore judge of its claims from the description and figures alone. It appears to be a more elegant plant than *L. filix-mas*, from which it is distinguishable by possessing acute inciso-serrate pinnules: the teeth being patent and again serrate and acute. Most of the pinnules are usually distinct at the base, which is narrowed both above and below, and their lateral veins are three or four times branched.

Mr. Moore describes under the name of *L. filix-mas* β . *incisa*, a fern which he considers as the *L. erosa* of Deakin, but in that opinion we do not concur. Beautiful specimens of it are before us, and after a careful examination of them we have been led to the conclusion that they are not distinguishable specifically from *L. filix-mas*, from which they seem chiefly to differ in the rather less obtuse extremity of their pinnules, the teeth of which are not patent, and are regularly furnished with one or more terminal or subterminal notches, but not toothed as in *L. erosa*. Their base also is similar to that of typical *L. filix-mas*, being narrowed above, but not at all or very slightly below, the lowest excepted: they are also usually decurrent and connected. The sori do not appear to occupy a greater length of the pinnules than they are often found to do in the typical plant, neither do the veins strike us as being materially different from those of it. It is probable that Mr. Moore has been led to suppose that his plant is identical with that described by Dr. Deakin, from the latter botanist having stated his belief that the plant found at Cocker-mouth by Miss Browne and figured by Mr. Newman (p. 197, *f. b.*) is his *L. erosa*. We think that Newman's figure represents Moore's variety *incisa*, and that a comparison of it with Deakin's figure (on page 102) will show that Dr. Deakin has been too hasty in identifying the plants. An elaborate description of *L. erosa* will be found in Dr. Deakin's work.

We have not succeeded in confirming the distinctness of *L. maculata* (Deak.), which according to that author differs from *L. dilatata* by its longer stem, uniformly coloured scales, more deeply cut and

serrated secondary lobes, with the lateral veins terminating at the point, and the sori placed immediately under the cleft of the lobe, not in its middle as in *L. dilatata*.

Neither of our authors has ventured to place Newman's *L. colina* in the rank of a species, to which we are inclined to believe that it has strong claims. Its ovate obtuse pinnules, which are obtusely mucronate-serrate and attached broadly at their base as in *L. spinulosa*, distinguish it from *L. dilatata*, with which it agrees in having pointed scales on its stipes with a dark brown centre and diaphanous margin. It does not accord with French specimens named as the *Polysticum tanacetifolium* of DeCandolle.

Mr. Moore has distinguished three forms of *Polysticum angulare* which had not been previously noticed; we must refer to his book for an account and figures of them.

In the genus *Cystopteris* a very curious variety or monstrosity is figured by Mr. Moore under the name of *C. Dickieana* (Sim). By the kindness of Dr. Dickie of Aberdeen, its discoverer, "in two dripping caves on the coast near Aberdeen," we have had an opportunity of examining specimens of this curious plant, both wild and also after two years of cultivation, during which time they have not undergone any material alteration. It seems probable that the peculiar broadness of frond of this plant may result from its place of growth, and that it is nothing more than an abnormal state of *C. dentata*. The peculiarly broad ovate and entire pinnules of *C. Dickieana* contrast most remarkably with the slender almost linear notched pinnules of a variety of *C. fragilis* inhabiting a similar cave, situated high up on one of the cliffs of Snowdon.

We think that Mr. Moore is in error when he states that "in Wales the variety *dentata* [*C. dentata*, Hook.] is the most abundant," as we have never been able to find it in any part of that country: all the Welsh plants that we have seen are states of *C. fragilis*, under which we include the *C. angustata* (Sm.). Dr. Deakin has given (pp. 84, 85) beautiful figures in illustration of *C. fragilis*, under which he places *C. dentata*, and in addition characterizes as varieties the *C. cynapifolia* (Roth), *C. angustata* (Sm.), and *C. anthriscifolia* (Roth).

The Scottish *C. dentata* is in all probability a distinct species from *C. fragilis*, under which we would place the other above-mentioned plants. Its characters are well illustrated by Mr. Newman (Brit. Ferns, p. 154), and it seems to have been found in the highlands of Scotland alone, where it is by no means rare.

Mr. Moore has acted wisely in naming and distinguishing as varieties the two forms of *Pteris aquilina*, one of them having its lower pinnules pinnatifid, whilst in the other they are quite entire. It is singular that we should be unable to discover any previous notice of this well-marked variation in the writings of other botanists, with the exception of a cursory remark in Dr. Deakin's work.

In conclusion, we have only to add, that we can conscientiously recommend both these works to the favourable notice of our readers.